

**Remarks**

Claims 1 – 9 are pending.

Claims 6 – 8 are withdrawn from consideration.

Claims 1 – 5 and 9 were rejected.

Claim Rejections

Claims 1 – 5 and 9 were rejected under 35 USC 103(a) as being unpatentable over Jespersen (US/2006/0121464) in view of Cherukuri (US 5,603,351).

However, not all of the elements and limitations of the Claims are found in Jespersen, alone or in combination with Cherukuri.

One of the elements of Claim 1 is:

“a microfluidic channel with openings at each end and two or more apertures in the channel walls”.

One of the elements of Claim 9 is:

“a plurality of apertures defined in the channel”.

Examiner, referring to Jespersen, states in part:

“although FIG. 3 appears to depict a single aperture, it is interpreted that a plurality of apertures exist on membrane 3 in light of Example 2 which discloses using the device of FIG. 3, [0067], which comprises multiple “sites” which are interpreted to read on the apertures, see [0070-0071]”.

In an interview that took place on 12/15/2009, Examiner Olsen presented US 7,201,836 (Vogel) and 6,488,829 (Schroeder) as examples of multi-aperture patch clamp experiments to support the “interpret[ation] that a plurality of apertures exist” as quoted above.

Filed herewith is a 37 CFR 1.132 Declaration of Dr. Harvey Fishman, an expert in the fields of microfabricated structures for biological research and patch clamp experimentation. The facts set forth in Dr. Fishman’s declaration establish that Examiners’ “interpret[ation] that a plurality of apertures exist” is not correct.

Dr. Fishman further shows that for patch clamp experiments involving  $N$  apertures, at least  $N+1$  electrodes must be present.

Claims 1 and 9 have been amended to clarify that in the claimed device the number of electrodes is less than or equal to the number of apertures, a requirement that is not met by patch clamp apparatus.

## **Conclusion**

In conclusion, and in view of the amendments and remarks, it is respectfully submitted that all claims are now in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

/mu/

Morrison Ulman  
Reg. No. 55,691  
Agent for Applicant

Appended documents:

1. Declaration of Dr. Harvey Fishman Under 37 CFR 1.132